

CLAIMS

1. A binding peptide comprising an amino acid sequence shown in any one of SEQ ID NOs. 1 – 316 and a binding peptide having at least 70% sequence identity thereto.

2. A binding peptide consisting essentially of an amino acid sequence shown in any one of SEQ ID NOs. 1 - 316 and a binding peptide having at least 70% sequence identity thereto.

3. The binding peptide of claim 1, wherein the peptide is selected from the group consisting of KTPSPHG (SEQ ID NO. 1); PNTTRHS (SEQ ID NO. 2); LWTSPQL (SEQ ID NO. 8); TNNTSPT (SEQ ID NO. 24); SPTSTNS (SEQ ID NO. 43); TTTTPFA (SEQ ID NO. 77); SWNTSPL (SEQ ID NO. 80); QAVKASHATMYL (SEQ ID NO. 97); SYDLIPPRSGLA (SEQ ID NO. 104); DPNTTSH (SEQ ID NO. 118); KASHLVP (SEQ ID NO. 132); LPTSTLT (SEQ ID NO. 139); QNQKSTT (SEQ ID NO. 158); SIIPPRQ (SEQ ID NO. 168); WSNKPLSPNDLR (SEQ ID NO. 193) and peptides having at least 75% amino acid sequence identity thereto.

4. The binding peptide of claim 1, having a repeatable motif selected from the group consisting of

LPL (SEQ ID NOs. 120, 123, 115 and 250);

FAT (SEQ ID NOs. 125, 227 and 235);

STT (SEQ ID NOs. 90, 158, 230 and 310);

HSP (SEQ ID NOs. 18, 252 and 307);

TNK (SEQ ID NOs. 40, 259 and 287);

SPL (SEQ ID NOs. 53, 80, 152, 229, 232 and 292);

THS (SEQ ID NOs. 62, 209 and 290);

TSP (SEQ ID NOs. 8, 24, 80, 223 and 291);

SPT (SEQ ID NOs. 24, 43 and 266);

AQT (SEQ ID NOs. 59, 134 and 205);

NSS (SEQ ID NOs. 31, 86, 213, 227 and 278);

PAL (SEQ ID NOs. 109, 224 and 256);

SGL (SEQ ID NOs. 104, 284 and 298); and

TQT (SEQ ID NOs. 105, 281 and 287) and a binding peptide having the repeatable motif and at least 75% amino acid sequence identity to a binding peptide having the repeatable motif and listed herein.

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5. The binding peptide of claim 1, wherein said peptide binds to a compound selected from the group consisting of tannin, anthocyanin and phenolic compounds.
6. The binding peptide of claim 1, wherein said peptide binds to a tea or wine stain.
7. The binding peptide of claim 6, wherein the peptide binds to a tea or wine stain on a fabric.
8. The binding peptide of claim 6, wherein the peptide binds to a tea or wine stain on a surface.
9. The binding peptide of claim 8, wherein the surface is selected from the group consisting of ceramic, glass, wood, paper, skin, hair and plastic.
10. The binding peptide of claim 1, further comprising a cysteine amino acid residue at the N and C terminus of said peptide.
11. A binding peptide conjugate comprising a binding peptide of claim 1, linked to an agent.
12. A binding peptide conjugate comprising a binding peptide of claim 10, linked to an agent.
13. The conjugate according to claim 11, wherein said agent is a protein.
14. The conjugate of claim 13, wherein the protein is an enzyme.
15. The conjugate of claim 14, wherein said enzyme is an enzyme that catalyzes an oxidation-reduction reaction and is selected from the group consisting of laccases, phenol oxidases, catalases, bilirubin oxidases, glucose oxidases, and peroxidases.
16. The conjugate of claim 12, wherein said binding peptide is covalently linked to said agent.
17. The conjugate of claim 12, wherein said binding peptide and said agent are separated by a linker.
18. An enzymatic composition comprising a binding peptide of claim 1, an enzyme, and one or more surfactants.

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19. The enzymatic composition of claim 18, wherein said enzymatic composition is a detergent composition.

20. An enzymatic composition comprising a) a binding peptide conjugate which comprises a binding peptide of claim 1 linked to an agent, wherein the agent is an enzyme and b) one or more surfactants.

21. A method for modifying a tea or wine stain on a fabric or a surface comprising contacting a fabric or a surface having a tea or wine stain thereon with the enzymatic composition of claim 18.

22. The method of claim 21, wherein the surface is a ceramic surface.

23. The method of claim 21, wherein the surface is skin or hair.

24. The method of claim 21, wherein the modification is removing the tea or wine stain.

25. The method of claim 21, wherein the modification is enhancing the tea or wine stain.

26. A method for delivering an agent to a target comprising a) conjugating an agent with a binding peptide of claim 1 to form a binding peptide conjugate and b) exposing a target to the binding peptide conjugated, wherein the binding peptide conjugate binds to said target.

27. The method according to claim 26, wherein the target is a tea or wine stain.

28. The method according to claim 26, wherein the agent is an enzyme

29. A polynucleotide sequence encoding a binding peptide of claim 1.

30. A polynucleotide sequence encoding a binding peptide conjugate of claim 11.

31. A polynucleotide sequence encoding a binding peptide of claim 10.

32. An expression vector comprising a polynucleotide sequence encoding a binding peptide of claim 1 which is operably linked to a promoter and termination sequence.

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33. An expression vector comprising a polynucleotide sequence encoding a binding peptide conjugate of claim 11 which is operably linked to a promoter and termination sequence.

34. A host cell comprising the expression vector of claim 32.

35. A host cell comprising the expression vector of claim 33.